

**REMARKS**

Claims 1-8 and 10-16 are pending in this application. Claims 10-16 are canceled without prejudice or disclaimer, and claims 1 and 6 are amended herein. Upon entry of this amendment, claims 1-8 will be pending. Entry of this amendment and reconsideration of the rejections are respectfully requested.

No new matter has been introduced by this Amendment. Support for the amendments to the claims is discussed below.

**Claims 1, 4-5, 7-8, 10-16 are rejected under 35 U.S.C. §103(a) as being unpatentable over IDS reference to Hayashi (JP 2003321502 abstract and machine translation), in view of the combination of Musher and *Handbook of Hydrocolloids* (Pages 155-168). (Office action item (A))**

**Claims 2-3, 6 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hayashi, Musher and *Handbook of Hydrocolloids* as applied to claim 1, further in view of IDS reference to Lee et al (EP 0108594), hereinafter Lee. (Office action item (B))**

The rejection of claims 10-16 is moot in view of the cancellation of these claims without prejudice or disclaimer. Reconsideration of the rejection of claims 1-8 is respectfully requested in view of the amendments to the claims.

Claim 1 has been amended to limit the pH of the aqueous solution to "pH 4.5 to 6." Support for this amendment may be found, for example, in claim 6 before the present amendment. Claim 6 is accordingly amended to delete this limitation.

According to the last paragraph on page 5 of the Office Action, the Examiner acknowledges that Hayashi does not disclose the pH of the aqueous solution for gum arabic.

Please refer to the last paragraph on page 5 of the Office action, which states:

Regarding the pH of the aqueous solution is 4.5 to 6 (claim 6), Hayashi is silent, however, gum arabic was known to form stable acidic emulsified compositions with pH 3.5-4.0 (Lee page 8, line 9). Further, handbook of hydrocolloids discloses that gum arabic does not lose its properties in acidic medium. Furthermore, dispersion of gum arabic in products like salad dressings, spreads, jellies, fruit preserves, having acidities in the claimed range has been well known in the art (Handbook of Hydrocolloids, Lee) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hayashi further in view of Lee and disperse gum arabic in an acidic medium at least for the purpose of creating an emulsion or dispersion with desired tartness or sourness.

However, the Examiner affirms that it is easy to make the aqueous solution of gum arabic be pH 4.5-6 under an acid condition, because it is known that gum arabic is stable under the acid condition since Lee discloses an emulsion of gum arabic is stable with pH 3.5-4.0 (please see page 8, line 9 of Lee), and Handbook of Hydrocolloids discloses that gum arabic does not lose its characteristic under the acid condition.

However, Applicant respectfully submits that the Examiner disregards a problem and effect of the present invention, and that the stated motivation to modify the references is improper.

The problem and effect of the present invention is modifying gum arabic to improve its emulsifiability.

On the other hand, neither Lee nor Handbook of Hydrocolloids suggests that the emulsifiability of gum arabic is improved under acid conditions. Moreover, as the Examiner acknowledges, these references disclose that a characteristic of gum arabic is stable under the acid conditions. Accordingly, the skilled in the art who reads Lee or Handbook of Hydrocolloids

would consider that gum arabic cannot be modified under acid conditions. That is, the descriptions in Lee and Handbook of Hydrocolloids teach away from the present invention, which conducts the modification of gum arabic under the acid condition of pH 4.5-6.

In addition, while Lee discloses to make the emulsion of gum arabic be pH 3.5-4.0, it does not disclose to make that be pH 4.5-6. Therefore, there is no suggestion in Lee for the acid condition of pH 4.5-6 in amended claim 1 of the present application.

Further, Musher merely discloses water-soluble gum (gum arabic), which is used as a thickener. This reference neither discloses nor suggests that water-soluble gum can be modified at pH 4.5-6.

In light of the above, claims 1-8 are not obvious over Hayashi, Musher, Lee and Handbook of Hydrocolloids, taken separately or in combination.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants' undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

U.S. Patent Application Serial No.: **10/593,347**


Response filed December 6, 2011

Reply to OA dated September 9, 2011

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

KRATZ, QUINTOS & HANSON, LLP

  
Daniel A. Geselowitz, Ph.D.  
Agent for Applicants  
Reg. No. 42,573

DAG/xl

Atty. Docket No. **060705**  
4<sup>th</sup> Floor  
1420 K Street, N.W.  
Washington, D.C. 20005  
(202) 659-2930 x 209



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